

COMMENTS ON A WATER STRIDER,  
*RHEUMATOBATES MEINERTI* FROM THE  
ANTILLES AND A CHECKLIST OF THE SPECIES  
OF THE GENUS (HEMIPTERA: GERRIDAE)<sup>1</sup>

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ABSTRACT: The first record of the gerrid *Rheumatobates meinerti* is reported from the Dominican Republic and its known distribution is summarized. A checklist of species and subspecies in the genus is provided.

During a fieldtrip, 5-19 November 1984, to the Dominican Republic to collect aquatic Coleoptera, numerous aquatic Hemiptera were also collected. Among them was a series of 634 specimens of the gerrid *Rheumatobates meinerti* Schroeder. The neotropical species of these small water striders are reported infrequently. For example, a review of the 33 species presently described in the genus shows that 81% of them are reported only from one country (or island) and 33% are from the type-locality. Consequently, these comments were prepared to summarize briefly the distribution data available for this species; to report several new locality records; and provide some information on the number of adults versus nymphs, winged versus apterous specimens, and males versus females in the sample collected. A checklist of the species in the genus *Rheumatobates* also is provided.

Schroeder (1931) based his description of *R. imitator* var. *meinerti* on six specimens from Aux Cayes, Haiti, collected 14 June 1894 by H. Nepperschmidt; holotype, allotype, and four paratypes are in the Snow Entomological Museum, University of Kansas, Lawrence, Kansas. The few distribution records published since the original description are discussed below.

*Rheumatobates meinerti* is very similar to *R. bergrothi* Meinert and some records for it were given under the latter name. The records for Jamaica given under the name *R. bergrothi* by Barber (1939) were transferred to *R. meinerti* by Drake and Harris (1942), who also raised it to species level from the varietal status under *R. imitator* as originally assigned by Schroeder (1931). Apparently the Dominican Republic records from Bajos de Haina, as given by Drake and Maldonado Capriles

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(1956), were also based on a misidentification; our examination of the Drake collection found that these specimens were now correctly identified with a Drake determination label as *R. meinerti*. More recently, Alayo (1967, 1974a, 1974b) reported *R. meinerti* from Cuba.

In comparing NMNH specimens of *R. meinerti* with *R. bergrothi*, we found a single slightly damaged male of *R. meinerti* which apparently is one of the same series Nepperschmidt collected but which somehow became separated from the six specimens Schroeder had available when he described this species. The old, yellow, handwritten locality label reads: "Aux Cayes (Hayti) 3.5.94 H. Nepperschmidt leg ded. 14.6.1894." Beneath the locality label is an identification label that reads: "Rheumatobates bergrothi Meinert [male sex sign] det. Kirkaldy '01."

The specimens recently collected in the Dominican Republic are labeled Dominican Republic, Distrito Nacional, Guerra (4 km north), 15 Nov 1984, P. & P. Spangler, R. Faitoute. The specimens, part of a very large aggregation estimated to consist of several thousand individuals, were collected from a narrow, open but shaded area between the shore of a large freshwater pond and large patches of emergent vegetation growing about 1 or 2 meters from the shore. A summary of the stage and sex of 634 individuals collected is given in Table I. Specimens from this collection will be deposited in the National Museum of Natural History, Smithsonian Institution; the Museo Nacional de Historia Natural, Santo Domingo, Republica Dominicana; and the collection of John T. Polhemus, Englewood, Colorado.

The body length of adult females ranged from 2.89 to 2.97 mm and exceeded that of the males, which ranged from 2.54 to 2.66 mm.

The sexes of the fourth-instar and fifth-instar nymphs may be readily determined by the differences in the length versus the width of the last abdominal segment (measured dorsally). Male nymphs have the last segment almost as long as the basal width; female nymphs have the last segment twice as long as the basal width. The instar of the nymphs was determined by the comparative sizes of the fourth and fifth instar reported by Silvey (1931) in his life history study of *R. rileyi* Bergroth, a species only slightly larger in body length than that of *R. meinerti*.

Because no recent checklist is available for the species and subspecies in the genus *Rheumatobates* and new distribution records are available for many of them, the following checklist has been prepared. The previously unpublished locality records indicated by an asterisk were provided by John T. Polhemus.

**Checklist of the species and subspecies  
in the Genus *Rheumatobates*  
(Hemiptera: Gerridae)**

<i>RHEUMATOBATES</i> Bergroth 1892:321	
<i>aestuarius</i> Polhemus 1969:509 .....	Mexico
<i>bergrothi</i> Meinert 1895:1 .....	El Salvador*, Grenada, Honduras*, Panama, Venezuela
<i>bonariensis</i> (Berg) 1898:5 .....	Argentina, Brazil, Peru
syn. <i>wrighti</i> Drake & Harris 1937:360	
<i>carvalhoi</i> Drake & Harris 1944:269 .....	Brazil
<i>citatus</i> Drake & Hottes 1951:150 .....	Mexico
<i>clanis</i> Drake & Harris 1932:157 .....	Cuba, British Honduras, Florida, Guatemala*, Jamaica*
<i>crassifemur crassifemur</i> Esaki 1926:149 .....	Argentina, Paraguay
<i>crassifemur esakii</i> Schroeder 1931:77 .....	Brazil, British Guiana, Peru*
<i>crassifemur schroederi</i> Hungerford 1954:556 .....	Brazil
<i>creaseri</i> Hungerford 1936:146 .....	Mexico
<i>curracis</i> Drake & Carvalho 1954:223 .....	Brazil
<i>drakei</i> Hungerford 1954:541 .....	British Guiana, Suriname*, Peru*
<i>hamatus</i> Drake & Chapman 1954:151 .....	Brazil
<i>hungerfordi</i> Wiley 1923:202 .....	Belize*, Mexico, Texas to Utah
<i>imitator</i> (Uhler) 1894:214 .....	Grenada, Martinique*, Puerto Rico, Trinidad, Virgin Islands
<i>klagei</i> Schroeder 1931:75 .....	Brazil
<i>mangrovensis</i> (China) 1943:77 .....	Trinidad
<i>meinerti</i> Schroeder 1931:70 .....	Cuba, Dominican Republic, Haiti, Jamaica
<i>mexicanus</i> Drake & Hottes 1951:152 .....	Mexico
<i>minimus</i> Drake 1958:109 .....	Peru
<i>minutus minutus</i> Hungerford 1936:147 .....	Costa Rica*, Florida, Mexico, Panama, Peru, Puerto Rico, Trinidad
<i>minutus flavidus</i> Drake & Harris 1942:401 .....	Bolivia*, Brazil, Costa Rica*, Peru
<i>ornatus</i> Polhemus & Cheng 1977:321 .....	Costa Rica
<i>palosi</i> Blatchley 1926:982 .....	E. U.S.A.
<i>petilus</i> Drake & Hottes 1951:147 .....	Mexico
<i>praeposterus</i> Bergroth 1908:376 .....	Guatemala
<i>prostatus</i> Polhemus 1975:243 .....	Costa Rica
<i>rileyi</i> Bergroth 1892:321 .....	E. U.S.A.
<i>spinosis</i> Hungerford 1954:562 .....	Bolivia*, Brazil
<i>tenuipes</i> Meinert 1895:1 .....	E. U.S.A., Belize*
<i>trinitatis</i> (China) 1943:72 .....	Trinidad
<i>trulliger</i> Bergroth 1915:63 .....	SE. U.S.A to Oklahoma
<i>vegatus</i> Drake & Harris 1942:401 .....	Cuba, Florida, Puerto Rico
syn. <i>crinitus</i> Herring 1949:160	

Table 1. Composition of collection of *Rheumatobates meinerti* Schroeder from the Dominican Republic.

	MALES	FEMALES
ADULTS		
Apterous	227	135
Winged	2	3
FOURTH INSTARS	37	22
FIFTH INSTARS		
Without wing pads	113	77
With wing pads	16	2
TOTALS	395	239

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